

**DELAY CORRELATION ANALYSIS AND REPRESENTATION FOR VITAL  
COMPLIANT VHDL MODELS**

**Abstract of the Disclosure**

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A method and system unbind a rise/fall tuple of a VHDL generic variable and create rise time and fall time generics of each generic variable that are independent of each other. Then, according to a predetermined correlation policy, the method and system collect delay values in a VHDL standard delay file, sort the delay values, remove duplicate delay values, group the delay values into correlation sets, and output an analysis file. The correlation policy may include collecting all generic variables in a VHDL standard delay file, selecting each generic variable, and performing reductions on the set of delay values associated with each selected generic variable.

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